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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,509	01/26/2001	Kazuhisa Hayakawa	080542/0155	6118

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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 11/20/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/769,509

Applicant(s)

HAYAKAWA ET AL.

Examiner

Betelhem Shewareged

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on 09/05/2002 has been fully considered. The first paragraph of 35 U.S.C. 112 rejection has been withdrawn in view of applicant's amendments and comments. Claims 1 and 2 are amended, claims 17-19 are added, and claims 1-19 are pending.

Claim Rejections - 35 USC § 102

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Sargeant et al. (US 6,146,770).

Sargeant discloses an ink jet recording medium comprising a substrate, an ink absorbent layer onto the substrate, and a barrier layer onto the ink absorbent layer, wherein the barrier layer comprises cellulose ether derivative (col. 2, lines 26-37). The barrier layer is equivalent to the claimed cellulose ether film. The recording medium can be used for overhead presentation (col. 1, line 22).

Response to Arguments

3. Applicant's argument is based on that the reference does not disclose that the barrier layer "consisting essentially of" cellulose ether. The argument has not been found persuasive for the following reasons. The phrase "consisting essentially of" limits the scope of claims to specified materials or steps of the claimed invention. Applicant fails to provide evidence that the presence of any other component would materially affect the characteristics of the claimed invention. See MPEP 2111.03

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The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original) (Prior art hydraulic fluid required a dispersant which appellants argued was excluded from claims limited to a functional fluid "consisting essentially of" certain components. In finding the claims did not exclude the prior art dispersant, the court noted that appellants' specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics.). "A 'consisting essentially of' claim occupies a middle ground between closed claims that are written in a 'consisting of' format and fully open claims that are drafted in a 'comprising' format." PPG Industries v. Guardian Industries, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). See also Atlas Powder v. E.I. duPont de Nemours & Co., 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); In re Janakirama-Rao, 317 F.2d 951, 137 USPQ 893 (CCPA 1963); Water Technologies Corp. vs. Calco, Ltd., 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355 ("PPG could have defined the scope of the phrase 'consisting essentially of' for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention."). See also In re Janakirama-Rao, 317 F.2d 951, 954, 137 USPQ 893, 895-96 (CCPA 1963). If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also Ex parte Hoffman, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989) ("Although 'consisting essentially of' is typically used and defined in the context of compositions of matter, we find nothing intrinsically wrong with the use of such language as a modifier of method steps. . . [rendering] the claim open only for the inclusion of steps which do not materially affect the basic and novel characteristics of the claimed method. To determine the steps included versus excluded the claim must be read in light of the specification. . . . [I]t is an applicant's burden to establish that a step practiced in a prior art method is excluded from his claims by 'consisting essentially of' language.").

4. Furthermore, the reference teaches that the barrier layer contains no greater than about 50% of cellulose ether. "About 50%" includes a bit more than 50%, and it shows that the barrier layer is mainly composed of cellulose ether. For the above reasons claims 1 and 2 stand rejected.

Claim Rejections - 35 USC § 103

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sargeant et al. (US 6,146,770) in view of Shaw-Klein et al. (US 6,361,853) and web site posted by Shin-Etsu Chemical Co., Ltd.

Sargeant discloses an ink jet recording medium comprising a substrate, an ink absorbent layer onto the substrate, and a barrier layer onto the ink absorbent layer, wherein the barrier layer comprises cellulose ether derivative (col. 2, lines 26-37). The barrier layer is equivalent to the claimed cellulose ether film. The recording medium can be used for overhead presentation (col. 1, line 22). Sargeant does not disclose the claimed cellulose ether derivatives.

Shaw-Klein teaches ink jet recording element comprising a support, absorbing layer, adhesion promoting layer, and overcoat layer in the order recited. The overcoat layer comprises methyl cellulose, hydroxypropylmethyl cellulose, hydroxypropyl cellulose or sodium carboxymethyl cellulose (col. 2, line 31).

Sargeant and Shaw-Klein are analogous art because they are from the same field of endeavor that is the ink jet receiving art. At the time of the invention, it would have been obvious to the person of ordinary skill in the art to combine the cellulose ether derivatives of Shaw-klein's with the barrier layer of Sargeant so as to provide a layer having excellent image quality.

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Claims 3 and 4 are directed to product by process claims because the water does not exist in the final product. In view of the specification, the water is dried out during the process of making the claimed cellulose ether film. Furthermore, undissolved fibers would remain in the solution containing water and cellulose ether because the cellulose ether would not completely dissolve. The hydroxyl groups are creating strong hydrogen bonding and preventing water from flowing into the interval between the cellulose molecules. The above teaching is supported by a web site posted by Shin-Etsu Chemical Co., Ltd.

Sargeant does not disclose the claimed number of fibers and size of fibers. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the number of fibers and size of fibers in order to optimize the transparency of the film. The higher the number of the fibers and/or the bigger the size of the fibers the less transparency the film. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

Response to Arguments

6. Applicant's argument is based on that the combination of Sargeant and Shaw-Klein do not attain a film sheet unless a separable layer receptive to ink is added, a layer that is not present in claimed invention. The argument has not been found

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persuasive because applicant's claimed invention does not exclude any other layer.

The term "consisting essentially of" limits the claimed components that make up the film, but it does not limit the number layers. The claimed film may or may not have additional layer(s). Thus claims 1-16 stand rejected.

Allowable Subject Matter

7. Claims 17-19 are allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

BS/BS
November 18, 2002.

